

Section 00800 (C)

Dredging

Payment Item 0002

Part 1 - General

1. General. The Contractor shall be responsible for the removal and disposal of all material except ledge rock to the lines and grades shown on the drawings and indicated in the specifications.
2. Project Depth. The project depth for the Staats Point to Germantown Reaches of the Hudson River shall be 32 feet below mean low water.
3. Allowable Overdredging. A maximum of one (1) foot below project depth in the project reach shall be allowed for overdredging.
4. Work Covered by Contract Price Payment No. 0002. The contract price per cubic yard for Item 0002 shall include the cost of removal and placement of all material as specified herein or as indicated on the maps and drawings.
5. Removal and Placement of Material. The Contractor shall remove and place all materials as specified herein or indicated on the drawings, with the exception of ledge rock, large boulders, wrecks, snags, stumps, and piles which cannot be removed below project depth without blasting. Should ledge rock be encountered, the Contractor shall remove there from, all overlying materials which in the judgment of the Contracting Officer can be removed. Nothing in this paragraph shall be construed as prohibiting the removal of excepted material by special means at prices agreed upon and approved in accordance with the Contract Clause: "Differing Site Conditions".
6. Order of Work. No order of work is specified. However, The Contractor is advised that no dredging shall be permitted between April 1st and July 15th in Section 1; between April 1st and July 30th in Sections 2 and 3; and between April 1st and August 15th in Sections 4 and 5.

7. Character of Materials.

7.1. General. The material to be removed to restore the depth within the limits called for in the specifications and drawings is that comprising shoaling that has occurred since the channel was last dredged to the full constructed dimensions.

7.2. Sediment Classification. The results of analysis of composite core samples taken within the channel generally indicates an average grain size composition for each section of approximately:

Section 1: 1.17% Gravel, 58.58% Sand, 23.66% Silt, 16.38% Clay
Section 2: 3.07% Gravel, 93.30% Sand, 2.31% Silt, 1.32% Clay
Section 3: 0.21% Gravel, 91.42% Sand, 5.31% Silt, 3.05% Clay
Section 4: 0.00% Gravel, 78.18% Sand, 13.51% Silt, 8.31% Clay
Section 5: 0.00% Gravel, 03.05% Sand, 3.79% Silt, 2.26% Clay

See Section 00900(J), Attachment J for more details.

7.3. Bidder Verification. Bidders are expected to examine the site(s) of the work and decide for themselves the character of the materials. Records of previous dredging operations are available at the US Army Corps of Engineers, New York District, Albany Field Office, 1 Bond Street, Troy, NY, 12180.

8. Site Conditions. Bidders are expected to examine the site of the work, including the placement area, and decide for themselves as to the conditions affecting their operations. See contract clause entitled: "Site Investigation and Conditions Affecting the Work" (FAR 52.236-3).

9. Sedimentation Permits. No local governmental sedimentation or erosion control permits are required for this work except that as required in accordance with contract clause entitled: "Permits and Responsibilities" (FAR 52-236-7). The Contractor is advised of need to satisfy conditions of the New York State Water Quality Certification (Section 00900(J), Attachment B).

10. Submittals. The Contractor shall submit for approval, by the Contracting Officer and/or his representative, his plan for development of any contractor furnished placement areas or any modification to the Government furnished placement area. This plan shall show areas or portions thereof to be used.

The plan shall also show the manner in which the dredged material will be distributed in the areas. Such plans shall be provided by the Contractor at the Preconstruction Conference (Section 00800(H), H-35).

Part 2 - Products (Not Used)

Part 3 - Execution

10. Plant.

10.1. General. The Contractor agrees to keep on the job sufficient plant to meet the requirements of the work. The plant shall be in a satisfactory operating condition and capable of safely and efficiently performing the work as set forth in the plans and specifications. The plant shall be subject to the inspection of the Contracting Officer at all times. No reduction in the capacity of the plant employed on the work shall be made except by written permission of the Contracting Officer. The measure of the "capacity of the plant" shall be it's actual performance on the work to which these specifications apply.

10.2. Scows. All scows must be kept in good condition, the coamings repaired and the pockets provided with proper doors or appliances to prevent leakage of material.

10.3. Hydraulic Pipelines. All pipelines for hydraulic dredging plant must be kept in good condition at all times and any leaks or breaks along their length shall be promptly repaired. All breaks in any pipeline shall be reported on the Contractor's Daily Quality Control Report for the date the break occurred. An estimation of the duration of the break and the quantity of misplaced material shall be provided in the report.

10.4. Marking of Floating Dredge Pipelines. The Contractor shall be required to mark floating dredge pipelines in accordance with the requirements of 88.15 of Annex V of U.S. Navigation Rules, Inland, COMDTINST M 16672.2A, dated 23 December 1983. Dredge pipelines that are floating or supported on trestles shall display one row of yellow lights, visible all around the horizon for at least 2 miles on a clear, dark night. The lights shall flash at 50 to 70 times per minute and be placed not less than 1 and not more than 3-5 meters (9.8-16 feet) above the water. The lights shall be

sufficient in number to clearly show the length and course of the pipeline.

10.5. Dredge Pipelines Crossing Navigable Channels. The arrangement of any pipeline crossing a navigable channel shall be approved by the Contracting Officer. Where the pipeline crosses a navigable channel the spacing of the lights shall not be more than 10 meters (33 feet) apart. Two red lights, visible all around the horizon for at least 2 miles on a clear, dark night, shall be displayed at each end of the pipeline, including the ends in a channel where the pipeline is separated to allow vessels to pass (whether open or closed). The lights shall be one meter (3.3 feet) apart in a vertical line with the lower light at the same height above the water as the flashing light.

11. Transportation of Dredged Materials.

11.1. General. Dredged material shall be placed directly from the vessel (pipeline, bucket, etc.) to the placement site. Bottom dumping of the dredged material shall not be permitted.

11.2. Vessel Identification. Every vessel engaged in the transportation of dredged material of any description shall have its name and/or number, and owner's name, printed in letters and numbers, at least fourteen (14) inches high, distinctly legible at all times, and no scow or boat, not so marked, shall be used to transport any such material.

12. Floatable Material and Debris. All floatable material and debris excavated during dredging, including but not limited to wood and tires, shall be removed and disposed of at an approved existing upland placement or landfill site. Should the Contractor encounter floatable material or debris, a copy of a letter granting the permission of appropriate authorities to use an approved existing upland site shall be submitted to the Contracting Officer. Floatable material and debris may be stockpiled in approved designated areas prior to disposal. The Contractor shall dispose of accumulations of debris at any time as directed by the Contracting Officer.

13. Misplaced Material.

13.1. Unapproved Placement Sites. Any material that is deposited elsewhere other than in places designated or approved by the Contracting Officer shall not be paid for, and

the Contractor shall be required to remove such material and place it where directed, at his own expense.

13.2. Within Contract Limits or Adjacent Areas. Any material pushed, deposited or moved into deep areas within the contract limits or areas adjacent thereto by operations under the contract, whether intentional or otherwise, shall be removed to the original depths existing before dredging or a deduction from the pay quantity of material removed shall be made for the quantity of such material as may be allowed to remain in the areas. All costs for removal and placement of such material shall be solely at the Contractor's expense.

14. Monitoring and Control of Dredging Operations.

14.1. General. The Contractor shall monitor and control dredging operations and water quality in all areas affected by performance of his work as prescribed in these specifications. The Contractor's Quality Control Plan shall identify monitoring requirements and measures which will be taken to control conditions in the dredging areas and to insure that the Contractor's operations meet the requirements identified in the NYS Water Quality Certification.

14.2. New York State Water Quality Certification. The Contractor shall comply with all requirements identified in the NYS Water Quality Certification, including all special conditions. A copy of the Water Quality Certificate is included in Section 00900(J), Attachment B.

14.3. Sampling and Testing. The Contractor shall be responsible for all sampling and testing, including reporting for all required samples and tests, as prescribed by these specifications.

14.4. Laboratory Services. Sample analysis shall be undertaken at a laboratory with NYS Department of Health approval to perform environmental analysis.

14.5. Records of Testing. Records of testing results shall be submitted to the Contracting Officer, and to the NYS Department of Environmental Conservation Region that issued the Water Quality Certification, in accordance with these specifications. Any corrective measures, if needed, shall also be submitted to each of the above, and included in the Contractor's daily Quality Control Report.

15. Reporting Requirements. The Contractor shall prepare and maintain a Daily Report of Operations form and Quality Control Report form and furnish signed copies thereof to the Contracting Officer's Representative. Copies of forms prescribed for recording the required information are attached to Section 00900(J). Further instructions on the preparation and submittal of the reports will be furnished at the Preconstruction Conference.

16. Limit of Dredging. The area to be dredged is the area of the channel within the acceptance sections indicated on the drawings and specified in Section 00800(H), Special Contract Requirement entitled: "Final Examination and Acceptance", as defined by dredging prism indicated in paragraphs "Overdepth and Side Slopes" and Measurement and Payment".

17. Overdepth and Side Slopes.

17.1. Overdepth. To cover inaccuracies of the dredging process, material actually removed from within the specified area to be dredged, in the horizontal plan immediately below the required dredging area, will be estimated and paid for at the contract price to the depths specified: the allowable Overdepth shall be 1 foot below the required project depth.

17.2. Side Slopes. Material actually removed, within limits specified herein, to provide for final side slopes not flatter than 1 vertical on 3 horizontal, but not in excess of the amount originally lying above this limiting side slope, will be estimated and paid for at the contract price, whether dredged in original position or by dredging space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. In computing the limiting amount of side slope dredging an Overdepth of 1 foot measured vertically will be used.

17.3. Excessive Dredging. Material taken from beyond the limits as extended in paragraphs 17.1 and 17.2 will be deducted from the amount dredged as excessive Overdepth dredging, or excessive side slope dredging for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance with applicable provisions of Section 00800(H), Special Contract Requirements: "Final Examination and Acceptance" or "Shoaling".

18. Completion of a Section. The Contractor must inform the Government, in writing, within 3 calendar days of completing a section as specified on the contract drawing. Each section will be examined and accepted in accordance with Section 00800(H), para. H-18, "Final Examination and Acceptance", within a fair and reasonable time. Once the Contracting Officer or his representative accepts a section, the Contractor will be relieved of all responsibility for said section.

19. Measurement and Payment.

19.1. General. The total amount of material removed and to be paid for under the contract, shall be measured by the cubic yard in place. Measurement of the number of cubic yards in place shall be made by computing the volume between the bottom surface shown by soundings of the last survey made before dredging and the bottom surface shown by the soundings of a survey made as soon as practicable after the entire work specified has been completed. The volume for measurement shall include the material within the limits of the Overdepth, and side slopes described in paragraph entitled: "Overdepth and Side Slopes", less any deductions that may be required for misplaced material described in paragraph "Misplaced Material".

19.2. Exclusions. Excessive Overdepth dredging and excessive side slope dredging will in all cases be excluded as provided in paragraph 17 entitled, "Overdepth and Side Slopes".

19.3. Surveys.

19.3.1. General. The map and/or drawings already prepared (Section 00800(H), para. H.5 "Contract Drawings, Maps and Specifications"), accurately represent conditions existing on the dates indicated on the drawings. The soundings shown on the contract drawings were taken with a portable electronic depth recorder with a transducer frequency of 200 kHz. New soundings WILL BE taken generally two weeks prior to dredging. Soundings after dredging will be made by an electronic depth recorder with a transducer frequency of 200 kHz. After-dredging surveys will be completed generally within five days of completion of a section or the project.

19.3.2. Contractor Interference. Should a Government Survey Party be unable to accomplish a survey after such has been requested by the Contractor because the area is found to be

not cleared of equipment, the cost of the Survey Party for each day so delayed shall be chargeable to the Contractor.

19.4. Determination of Quantity.

19.4.1. General. The actual in place quantity to be paid for in each dredging section shall be determined by measurement of the quantity removed from a specified area with any applicable deductions made there from. This quantity after having once been made shall not be reopened except on evidence of collusion, fraud or obvious error.

19.4.2. Computations. Computations for payment purposes shall be made by the Corps of Engineers, utilizing the AVERAGE END AREA METHOD and computer processing.

19.4.3. Scows and Hopper Dredges. Where scows or hopper dredges are used in performance of work and where the Contractor maintains load or measuring devices on such scows or hopper dredges, copies of all recorded measurements made in connection with the work shall be furnished to the Contracting Officer and/or his Representative. If as the work progresses the Contractor determines that a significant difference exists between the recorded bin or scow quantities and the survey quantities computed from the check surveys described in Section 00800(C), paragraph 19.4.5 below, he shall immediately notify the Contracting Officer and/or his Representative of any such discrepancies. Such notification shall include a description of the Contractor's methods of measuring bin or scow quantities, certification of measuring techniques, documentation of material sampling methods used to convert bin or scow measurements to in-place density. **It is emphasized that bin or scow measurements shall not be used as a basis for partial or final payment.**

19.4.4. Shoaling. Shoaling in the areas to be dredged is not at a rapid rate from existing depths. The unit price for dredging based on the above method of computation of the quantity for which payment is to be made shall include the Contractor's evaluation of shoaling, changes in regimen of the waterway, or changes caused by the Contractor's operations that may occur during the period between the survey before dredging and the survey for acceptance of work.

19.4.5. 10-day Partial Payments. 10-day partial payments will be based on approximate quantities determined by soundings or sweepings taken behind the dredge by the

Contractor along with the Government Inspector accompanying the survey party. The Contractor's soundings are to be used for partial payments only and will not form a basis for the acceptance of the work (see Section 00800(H), paragraph H-37, Special Provision entitled: "Quantity Surveys").

19.4.6. Third Party Contracts. Should the Contractor in conjunction with work under the contract perform dredging for third parties adjacent to the specified areas to be dredged, payment will be made by the Government only for material removed from the contract area within a vertical plane at the contract limit lines at the location of work performed for such third parties.